

Application no.: 09/834,700

Docket no.: SEQ-2035-UT

REMARKS

Upon entry of the above amendments, only claims 1-5, 19, 20, 45, 46 and 76-83 will be pending. Applicants reserve the right to pursue subject matter that will no longer be pending after the amendment above, or which has not yet been pursued, in a related application. These amendments and new claims are introduced for the purpose of facilitating prosecution, to reduce the number of open issues, or to place the claims in better form for appeal. The claim amendments and new claims add no new matter as there is basis in cancelled claims and on page 8, lines 6-11 of the specification, for example. Thus, entry of the above amendments is proper.

Applicants extend their appreciation to the Examiner for highlighting allowable subject matter in the Office action. Applicants duly considered this section of the Office action and provide the following observations.

Rejection of Claim 75 for Alleged Lack of Utility and Enablement

Claim 75 was rejected under 35 U.S.C. §§ 101 and 112, first paragraph, as the claimed primers allegedly lacked substantial utility and thereby were not deemed useful. This rejection is moot as claim 75 is cancelled.

Applicants respectfully assert the nucleic acid primers of claims 82 and 83 have substantial utility as they are useful for determining the genotype at position 2073 in the AKAP10 nucleic acid sequence of SEQ ID NO: 1. As demonstrated in the specification in Example 4 (pages 100-104), determining the genotype at this position is useful for determining whether an individual has a decreased probability of surviving past the age of 60 years old. The Office observed the study in Example 4 was performed in a Caucasian population located in California. It is respectfully submitted that this observation should not preclude a finding of substantial utility because the results are applicable at least to Caucasians in California.

The MPEP makes it clear that **any reasonable use** identified by Applicant that can be viewed as providing a public benefit should be accepted as sufficient with regard to defining a "substantial" utility (MPEP 2107.01(I)). According to this standard, the primers of claims 82 and 83 have statutory utility because determining whether a person is at risk of not surviving the age of 60 years old is a reasonable use for the claimed primers.

Application no.: 09/834,700

Docket no.: SEQ-2035-UT

Rejection of Claims for Alleged Lack of Written Description

Claims 1-2, 6-8, 11, 13-20, 44, 47-53 and 69-71 were rejected under 35 U.S.C. §112, first paragraph, as the specification allegedly did not provide a disclosure indicating the Applicants were in possession of the claimed subject matter. Of these, claims 1, 2, 19, and 20 are pending. The Applicants respectfully assert that they find a written description in the specification.

The Office interpreted claims 1 and 2 on page 10 of the action as

...broadly drawn to encompass a sequence of nucleotides that encodes a polypeptide as set forth in SEQ ID NO: 2. The claim does not require a nucleic acid molecule encoding SEQ ID NO: 2. The claim is broadly interpreted to encompass fragments encoding SEQ ID NO: 2 embedded within nucleic acid sequences. The genus of nucleic acids is very large and has substantial variability. Essentially, as written, the claims would encompass nearly all nucleic acid molecules.

The Applicants do not understand the Office's position here. As the claims concern unique alleles of AKAP10 not present in all individuals, the claimed nucleic acids cannot encompass nearly all nucleic acid molecules. Claims 1 and 2 are directed to a nucleic acid comprising a nucleotide sequence that encodes the amino acid sequence of SEQ ID NO: 2 with a substitution of the Ile at position 646. The specification provides sequences for such nucleic acids and encoded amino acid sequences also are provided. For example, SEQ ID NOs: 1 and 3 include 5' and 3' untranslated regions and therefore "comprise" a nucleotide sequence that encodes the amino acid sequence.

Claims 1 and 2 are commensurate with claims the Office recently issued under similar circumstances where gene and encoded amino acid sequence are disclosed. U.S. Patent Nos. 6,753,164; 6,787,640 and 6,787,643 are examples of such patents, the claims for which are attached hereto as Exhibits A, B and C, respectively.

Thus, Applicants respectfully submit they had possession of the nucleic acids of claims 1 and 2. As claims 19 and 20 depend on claim 1 and were included in the specification, they also were possessed at the time the application was filed. It therefore is respectfully submitted that claims 1, 2, 19 and 20 find a written description in the specification.

Application no.: 09/834,700

Docket no.: SEQ-2035-UT

Art Rejections

Claims 1-2, 6-8, 11 and 15-18 were rejected under 35 U.S.C. § 102(a) as allegedly anticipated by Kwok, and claims 11 and 17-18 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chatterjee. As claims 6-8, 11 and 15-18 are cancelled, the only issue remaining is whether claims 1 and 2 are anticipated by Kwok. Applicants respectfully assert they are not. The Office states that Kwok discloses only a **fragment** of SEQ ID NO: 2. In contrast, a nucleotide sequence in claim 1 and claim 2 encodes **the polypeptide of SEQ ID NO: 2** with a substitution of the Ile at position 646. Thus, Kwok does not anticipate claims 1 and 2.

Application no.: 09/834,700

Docket no.: SEQ-2035-UT

CONCLUSIONS

Applicants respectfully submit that, after entry of the amendment above, all pending claims will be in condition for allowance, and they earnestly solicit an early notice to such effect. That said, should any issues or questions remain, the Examiner is encouraged to telephone the undersigned at (858) 623-9470 so that they may be promptly resolved.

In the unlikely event the transmittal letter is separated from this document and the Office determines that an extension and/or other relief is required, Applicants petition for any required relief, including extensions of time, and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to the credit card disclosed in form PTO-2038 filed with this document.

Respectfully submitted,

Dated: 21 DEC 2004By: 

Bruce Grant
Registration No. 47,608

Bruce D. Grant, A.P.C.
A California Corporation
BioTechnology Law Group
658 Marsolan Avenue
Solana Beach, California 92122
Telephone: (858) 623-9470
Facsimile: (858) 623-9476